PHASE I ENVIRONMENTAL SITE ASSESSMENT

WATER TANK PROPERTY, CITY OF ST. PAUL
ST. PAUL ISLAND, ALASKA

Prepared for

National Oceanic and Atmospheric Administration
7600 Sand Point Way, NE
Seattle, Washington 98115

Prepared by

Tetra Tech EM Inc.
6100 219th Street SW, Suite 550
Mountlake Terrace, Washington 98043

August 20, 2003

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EXECUTIVE SUMMARY

Tetra Tech EM Inc. (Tetra Tech) received a statement of work (SOW) dated May 14, 2003, from the National Oceanic and Atmospheric Administration (NOAA) under Contract No. 50WCNA906018 to prepare a Phase I Environmental Site Assessment (ESA) at the Water Tank Property in St. Paul, Alaska Lots 1 and 2, Parcel 6, U.S. Survey No. 4943, Alaska, Tract A, St. Paul Townsite). The ESA was conducted in accordance with American Society for Testing and Materials (ASTM) Practice E1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM 2000).

The results of this investigation represent a review of current conditions based on available information and limited observations. In addition to conducting a site reconnaissance, Tetra Tech performed a detailed review of historic records available from Federal and State databases, and obtained historic records information from the current property owner, NOAA.

First known use of the property began in 1910 when a signal station was constructed on the property. In 1912, two wooden 20,000-gallon tanks were constructed on the property for the purpose of storing fresh water for use by residents of St. Paul. Since that time, the property has been used for the storage of potable water and has included a series of water storage tanks and buildings for covering the tanks. Currently, the property houses three concrete water storage tanks and a small wooden pumping house.

The assessment revealed no evidence of recognized environmental conditions in connection with the property.

SECTION 1
INTRODUCTION

Tetra Tech EM Inc. (Tetra Tech) received a statement of work (SOW) dated May 14, 2003, from the National Oceanic and Atmospheric Administration (NOAA) under Contract No. 50WCNA906018 to prepare a Phase I Environmental Site Assessment (ESA) at the Water Tank Property in St. Paul, Alaska (Lots 1 and 2, Parcel 6, U.S. Survey No. 4943, Alaska, Tract A, St. Paul Townsite). The ESA was conducted in accordance with American Society for Testing and Materials (ASTM) Practice E1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM 2000).

1.1 SCOPE OF WORK

The purpose of the ESA was to identify potential areas of environmental concern associated with the subject property. Resources that Tetra Tech used in conducting the ESA include ASTM Practice E1527-00, public documents, Federal and State database access, visual inspection of the subject and surrounding properties, and interviews with persons knowledgeable about historic activities at the subject property.

This ESA is based on available information pertinent to the subject property and results of a walk-through site inspection. Where potential areas of environmental concern are identified, this report will recommend methods for obtaining confirmatory evidence of these concerns, including additional research, investigation, or collecting soil, sediment, surface water, or groundwater samples.

1.2 PURPOSE

The purpose of this ESA is to identify whether recognized environmental conditions are present on the subject property within the scope of work conducted as found in Section 1.1.

Recognized environmental conditions are defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a historic release, or material threat of release of any hazardous substance or petroleum product into structures on the property or to the ground surface, subsurface soil, groundwater, or surface water of the

subject or adjacent properties. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

1.3 INVOLVED PARTIES

Tetra Tech was contracted by NOAA, trustee for the subject property, to perform an ESA. John R. Merculief, City Manager for the City of St. Paul and Phyllis Swetzof, City Clerk for the City of St. Paul were interviewed regarding the environmental condition of the subject property. In addition, Betty Lindsay (NOAA) was consulted regarding historical records for the subject property, and Louis Howard (Alaska Department of Environmental Conservation) was consulted in regards to state environmental records for the subject property as well as other potential contaminated sites on St. Paul Island.

SECTION 2
PROPERTY DESCRIPTION

The following sections describe the subject property and adjacent properties as observed by Tetra Tech personnel during the June 17-18, 2003 site inspection and upon review of applicable maps and records. Figure 1 depicts the geographical location of the site, and Figure 2 provides detail of the subject property. Photographic documentation of the field inspection is presented in Appendix A.

2.1 LOCATION

St. Paul Island is part of the Pribilof Islands, a small island archipelago located in the Bering Sea approximately 800 miles west-southwest of Anchorage and 300 miles north-northwest of Dutch Harbor, Alaska. The City of St. Paul is situated on a peninsula in the southern portion of the island. The subject property is located along the western edge of the City of St Paul, and occupies Lots 1 and 2, Parcel 6 of the U.S. Survey No. 4943, Alaska, Tract A St. Paul Townsite (DOI-BLM). Coordinates for the subject property are latitude 57.1232° north and longitude 170.28401° west.

2.2 PHYSICAL SETTING

St. Paul Island covers approximately 44 square miles and was created as the result of volcanic activity. The climate of the island is classified as subpolar with weather conditions heavily influenced by the Bering Sea. Vegetation on the island is broadly classified a moist tundra. St. Paul Island is also well known for wildlife including fur seals, northern (Steller) sea lions, harbor seals, reindeer, and numerous species of birds.

The subject property is located in an area along the western edge of the City of St Paul that is zoned as institutional. The subject property covers approximately 35,000 square feet and includes three concrete water storage tanks and a small pumping house. Topographically, the subject property is situated atop Village Hill along the western edge of the City of St Paul; surrounding areas slope downward away from the site in all directions.

No private or public groundwater wells are located on the subject property. A total of seven groundwater wells are used to supply water for the City of St. Paul; however, these wells are all located approximately 2.5 miles north of the subject property in the vicinity of Telegraph Hill.

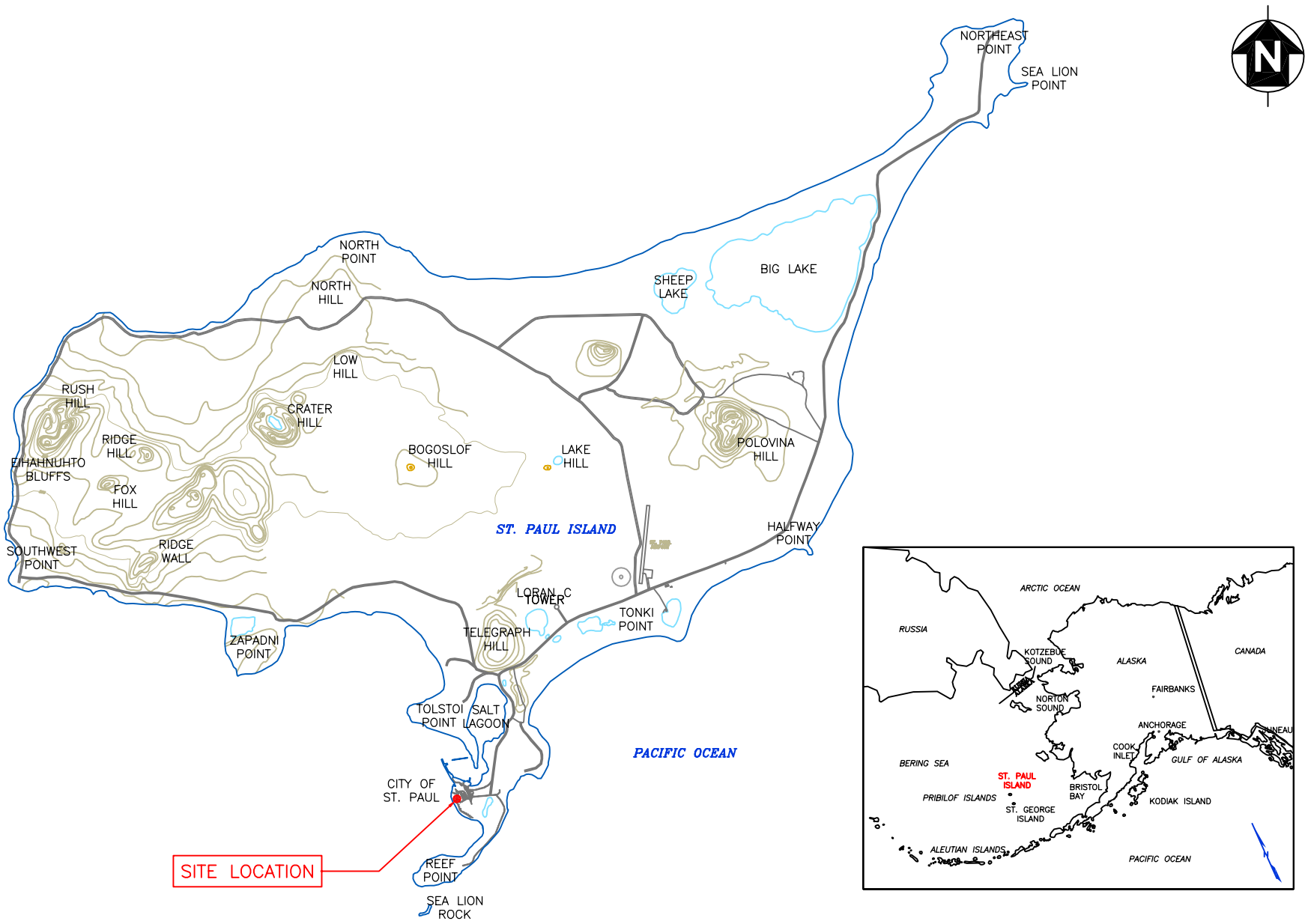


FIGURE 1

SITE LOCATION MAP
WATER TANK PROPERTY
CITY OF ST. PAUL
ST. PAUL ISLAND, ALASKA

TETRA TECH EM INC.

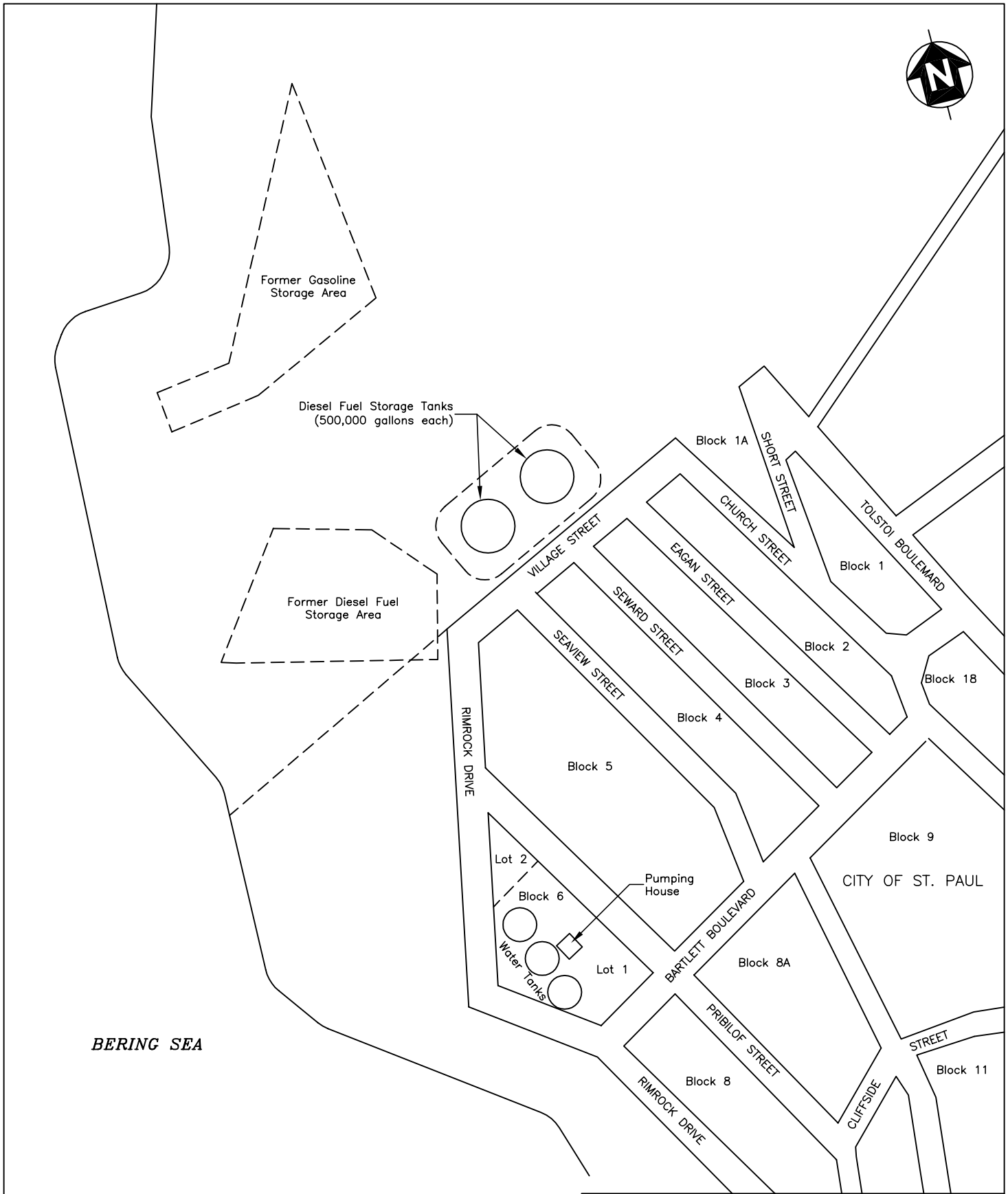


FIGURE 2

SITE PLAN
WATER TANK PROPERTY
CITY OF ST. PAUL
ST. PAUL ISLAND, ALASKA

TETRA TECH EM INC.

SECTION 3
HISTORIC REVIEW

During an ESA, several types of records commonly are reviewed to evaluate the subject property's historic uses. Often, sources of valuable historic use data include city directories, Sanborn™ fire insurance maps, and aerial photographs. No city directories or Sanborn™ fire insurance maps were available for the subject property. In addition, St. Paul Island is outside the coverage area for EDR assessments. Interviews with knowledgeable persons associated with historic site activities are also conducted during the ESA process to provide additional information about the subject property.

The following sections summarize city directory listings for the subject property, historical photographs, and other general information obtained during the ESA process.

3.1 CITY DIRECTORIES

No city directories were available for the subject property. However, personal interviews were conducted with John R. Merculief (City Manager for the City of St. Paul) and Phyllis Swetzof (City Clerk for the City of St. Paul); to their knowledge, the subject property has been used only for the storage of potable water. In addition, historical records indicate that the subject property has been used to store potable water since approximately 1912.

3.2 SANBORN™ FIRE INSURANCE MAPS

No Sanborn™ Fire Insurance Map coverage was available for the subject property (EDR 2001b).

3.3 HISTORICAL PHOTOGRAPHS

Historical photographs, including aerial photographs, were obtained from records compiled by Betty Lindsay, Historical Researcher for NOAA. Historical photographs of the subject property were reviewed for the years 1975, 1966, between 1956 and 1966, 1948, 1930, and 1912. Copies of the historical photographs are included in Appendix C. Results of the historical photograph review are as follows:

- **1975.** This photograph shows the three concrete storage tanks currently located at the subject property. Two residences have been constructed just northeast of the water tanks. Other properties within the vicinity of the subject property are generally shown as exhibiting current conditions.

- **1966.** The subject property is shown with two of the three current concrete storage tanks. In addition, the former tank house is still present; this tank house contained the four wooden storage tanks that were used to supply the village with water.

- **Between 1956 and 1966.** The subject property is shown with the two concrete storage tanks along with the tank house that contained the four wooden storage tanks.

- **1948.** The subject property contains the tank house that covered the four storage tanks used to supply water to the village. The surrounding properties are undeveloped except for roads and residences to the east.

- **1930.** The subject property contains the tank house that covered the four wooden storage tanks used to supply water to the village. In addition, the property contains a structure to the south of the tank house; the structure appears to be the former signal station discussed in historical records. The surrounding properties are undeveloped except for roads and residences to the east.

- **1912.** The photograph shows construction of the tank house with contained the two original redwood storage tanks.

3.4 GENERAL

Historical information related to the subject property indicates that development first began in 1910 when a small building was erected for use as a signal station; the building was reportedly painted. In 1912, two, 20,000-gallon redwood tanks (each 12 feet by 18 feet) were installed on the subject property north of the signal station to a depth of 5.5 feet for use as a village reservoir. In addition, another redwood tank (with the bottom removed) was sunk in the ground to a depth of 8.5 feet to be used as a well. The water storage tanks were installed on a heavy foundation of redwood sills and joists for support. A building measuring 45 feet by 25 feet was constructed over these tanks; the sides of the building were faced with turf and the roof was shingled. Water was pumped from the "well" tank into the storage tanks.

Between 1921 and 1922, a building measuring 100 feet by 32 feet was constructed on the subject property north of the previous tank house to contain four 40,000-gallon tanks to be used for the storage of fresh water. It is unknown when these four tanks were installed, or what was done with the two original redwood tanks. Approximately 500 feet of wooden pipe also were laid as part of the plan to distribute water to the village by way of gravity. Historical records indicate recommendations were made to cover the outside of the tank house with J.M. 3-ply "Flextone" asbestos roofing; the recommendation included a request for 5,000 square feet of this material. In addition, historical records indicate that the tank house was painted with white lead paint in accordance with existing standards.

Additional work on the tank house was conducted in 1925, and included partial siding and painting. Work conducted in 1929 included insulating pipes in the tank house.

In 1955, installation of two concrete tanks (200,000-gallon capacity each) was completed; they were connected to the existing water distribution system and used in conjunction with the four wooden tanks housed in the tank house. The new concrete tanks were constructed in the area south of the existing tank house; prior to this time, the area was apparently occupied by the original tank house that contained the two original redwood tanks. In 1956, one of the four wooden tanks was removed from service as it was found to be rotten and beyond repair.

In 1966, a third concrete tank was installed adjacent to the previous two installed in 1955. The four wooden storage tanks previously in service were torn down during this time as well.

Sometime in the early 1990s, a small wooden pumping house was constructed along the east side of the concrete water storage tanks. The pumping house was intended for use as part of a backup fire suppression system for the City of St. Paul; however, these plans were never implemented. Currently, the pumping house contains only miscellaneous piping associated with the water distribution system.

Water stored in the concrete tanks is obtained from seven groundwater wells located approximately 2.5 miles north of the subject property. Water treatment operations are conducted at the individual well sites, prior to pumping the water up the hill and into the storage tanks.

SECTION 4
SITE RECONNAISSANCE

During the ESA process, a site reconnaissance is conducted, and due diligence is exercised in identifying potential areas of environmental concern. The site reconnaissance focuses on evaluating the current disposition of the subject property and adjacent properties, interior storage and waste disposal areas, interior discharges, exterior storage and waste disposal areas, exterior discharges, storage tanks, and polychlorinated biphenyls (PCB).

Tetra Tech personnel performed the field inspection of the subject property on June 17-18, 2003.

4.1 CURRENT DISPOSITION OF SUBJECT PROPERTY

Purpose and Scope: During an ESA, the subject property is inspected to evaluate the general condition of the buildings and structures. General observations are made about the buildings and structures on the subject property, as well as their location, size, and apparent usage. Construction features, such as ceilings and floors, are noted, as is the presence and type(s) of light fixtures and electrical equipment. Also noted are other features and anomalies that may contribute to environmental contamination. Topography, vegetation, and proximity to thoroughfares and waterways also are observed during the inspection.

Observations: The subject property is occupied by three, concrete water storage tanks (each with a capacity of 200,000 gallons) and a small pumping house (measuring approximately 15 feet by 20 feet by 8 feet high). The storage tanks are situated on the topographic high for the area, and are surrounded by mounded fill (scoria) material; water from the tanks is distributed to the City of St. Paul by way of gravity through a series of underground pipes. The pumping house is a wooden structure with a tin roof that was reportedly constructed sometime during the early 1990s, and was originally intended for use in a backup fire suppression system for the City of St. Paul; the pumping house was found to contain only piping associated with the water distribution system. No insulation was noted on piping at the subject property although underground piping was not accessible and could not be inspected. Access roads also cross the subject property and encircle the storage tanks and pumping house.

4.2 CURRENT DISPOSITION OF ADJACENT PROPERTIES

Purpose and Scope: During an ESA, properties adjacent to the subject property are inspected for signs or conditions that could pose significant potential for environmental contamination on the subject property due to lateral migration of surface or subsurface contaminants from those properties. The review of adjacent properties is limited as recommended by ASTM Practice E-1527-00, and information relating to those properties provided herein should not be interpreted as comprehensive or conclusive, unless otherwise noted.

Observations: The subject property is located in an area zoned as institutional. All adjacent properties are zoned as open space. The surrounding properties were visually examined from the subject property and public roads. Property to the north includes two residences; in addition, two large fuel storage tanks (each with a 500,000 gallon capacity) are present approximately 300 feet to the north of the subject property and supply fuel by way of gravity feed to Village Cove harbor, which is also present within one mile to the north of the subject property. The two fuel storage tanks are housed within a lined containment area on the side of the hill sloping down to the harbor area, and contain diesel fuel used for harbor operations and supplying home heating fuel. Property to the east consists of open space and residential properties. Property to the south consists of open space and institutional property including City Hall and a series of satellite dish locations. Property to the west includes open space that slopes steeply down to the Bering Sea.

4.3 INTERIOR STORAGE AND WASTE DISPOSAL AREAS

Purpose and Scope: During an ESA, interior storage areas are examined for staining or other evidence of former activities that could present a potential for environmental contamination. Containers of chemicals are examined for content and usage, and trash or rubbish accumulation is noted. In addition, designated interior disposal areas and areas conducive to waste disposal are examined for evidence of improper disposal. Finally, restrooms, drains, exterior doors, and secluded closets are visually inspected.

Observations: The pumping house located adjacent to the east side of the water storage tanks was found to be devoid of any containers of chemicals or containers of unknown use or origin.

4.4 INTERIOR DISCHARGES

Purpose and Scope: During an ESA, interior discharge areas, such as drainage areas, pipe discharges, sumps, and air emission generators, are visually examined for leakage or other evidence of potential environmental contamination.

Observations: No evidence of discharges were observed inside the pumping house to the east of the water storage tanks.

4.5 EXTERIOR STORAGE AND WASTE DISPOSAL AREAS

Purpose and Scope: During an ESA, exterior storage and waste disposal areas are visually inspected for signs of releases or other environmental contamination associated with historic activities. Visual and olfactory evidence of chemical or other release are noted at designated storage areas and locations suggestive of storage operations such as concrete or asphalt pads, covered or fenced areas, pits, ponds, and lagoons.

In addition, exterior waste disposal areas are examined, including garbage cans and dumpsters. Areas of stained or off-color soil, stressed vegetation, discarded empty containers, and burned residue are inspected, as are remote or obscured areas of the property conducive to dumping.

Observations: No evidence of exterior storage or waste disposal was observed during the site reconnaissance.

4.6 EXTERIOR DISCHARGES

Purpose and Scope: During an ESA, exterior subsurface structures are inspected for evidence of leaks, releases, or other environmental contamination associated with historic activities. The presence of subsurface structures that collect or contain liquid and sediment may represent a source of potential environmental contamination. Areas that are inspected if present include underground voids and vaults, drains, sumps, oil/water separators, wells, pits, ponds, lagoons, and aboveground structures indicating subsurface activity.

Observations: No evidence of exterior discharges or waste disposal was observed during the site reconnaissance.

4.7 STORAGE TANKS

Purpose and Scope: The presence of current and historic aboveground storage tanks (AST) and underground storage tanks (UST) at the subject property is carefully evaluated during an ESA. Storage tanks are recognized as major potential sources of environmental contamination. Contamination of soil and/or groundwater may occur as a result of spills, overfills, or releases from tank systems. Such contamination would require remediation, and the property owner or operator could be responsible for remediation costs.

Observations: Currently, three concrete ASTs are present on the subject property; according to historical information and interviews, these tanks have always been used for the storage of potable water for public use. In addition, historical records indicate that at least six wooden tanks have been used on the subject property since 1912, also for the storage of potable water for public use. No other USTs or ASTs are known to have existed at the subject property.

4.8 POLYCHLORINATED BIPHENYLS

Purpose and Scope: The subject property was inspected for items that potentially may contain PCBs such as transformers and other electrical equipment.

Observations: One small transformer (estimated 50 KVA) was identified near the northern edge of the subject property; however, interviews with city officials indicate that this transformer does not contain PCBs. In addition, city officials had no recollection of PCBs ever being used on the subject property. No equipment suspected to contain PCBs was identified at the subject property during the site reconnaissance.

SECTION 5
REGULATORY RECORDS REVIEW

A regulatory records review was conducted through phone interviews with regulatory officials and by consulting available databases provided by the U.S. Environmental Protection Agency and the Alaska Department of Environmental Conservation. According to interviews, the subject property is not part of any regulatory action. Databases that were searched include the following.

Federal Records

- **Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS):** CERCLIS contains data on potentially hazardous waste sites that have been reported to the EPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites that are either proposed to or on the National Priorities List (NPL) and sites that are in the screening and assessment phase for possible inclusion in the NPL.

- **CERCLIS-No Further Remedial Action Planned (CERCLIS-NFRAP):** As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or contamination was not serious enough to require Federal Superfund action or NPL consideration.

- **NPL:** The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the federal Superfund program.

- **Delisted NPL:** The National Oil and Hazardous Substances Pollution and Contingency Plan establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may deleted from the NPL where no further response is appropriate.

- **Corrective Action Report (CORRACTS):** CORRACTS identifies hazardous waste handlers with Resource Conservation and Recovery Act (RCRA) corrective action activity.

- **Resource Conservation and Recovery Information System (RCRIS):** RCRIS includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA.

- **Emergency Response Notification System (ERNS):** ERNS records and stores information on reported releases of oil and hazardous substances.

State of Alaska Records

- **Contaminated Sites Database:** The Contaminated Sites Database is the State equivalent to CERCLIS. Sites contained in the CSCSL may or may not already be listed on the Federal CERCLIS list.

The subject property was not listed in any of the above listed databases.

A review was conducted of available Department of Environmental Conservation records for listed sites within 0.25 mile of the subject property and for sites with groundwater contamination located within 1 mile of the subject property. Results of the file review are presented in the table below. Nine listed sites (ADEC Contaminated Sites Database) were identified within a 1-mile radius of the subject property. However, each of these sites is located downgradient of the subject property. Three of the listed sites are classified with a closed status by ADEC (Two-Party Agreement [TPA] Sites 08, 09a, and 10). In addition, five facilities within 1 mile of the subject property were listed in the federal RCRIS database.

Site Name/Address	Site Type	Distance from Subject Property	Comments/Status
TPA 08 STP NOAA Landfill Cliffside Landfills St. Paul, Alaska	Landfills	¼ to ½ mile south	Two landfills (NOAA and NMFS) formerly operated along cliffs to south of subject property. ADEC site file lists this as closed under ADEC Contaminated Sites Database as of December 2001.
TPA 09 STP Tract 46 Industrial Area Near Tolstoi Bouldevard St. Paul, Alaska	Contaminated Soil	< ¼ mile north	According to ADEC, site contamination has been removed to the maximum extent practicable even though residual contamination remains in soil onsite. As of April 2003, ADEC has issued a conditional determination of no further remedial action or sampling required. ADEC site file is still active.
TPA 09a STP USTs Site (Tract 46) Near New City Boat Harbor St. Paul, Alaska	UST	< ¼ mile north	Six USTs located near new harbor. As of May 2003, ADEC issued a determination of no further remedial action or sampling required.
TPA 09b STP Power Plant (Tract 46) Near Tolstoi Boulevard St. Paul, Alaska	UST	< ¼ mile north	Diesel contamination in soil as a result of USTs during past power plant operations. As of March 2001, the ADEC site file is active.
TPA 09c STP Municipal Garage Near Municipal Garage St. Paul, Alaska	UST	< ¼ mile north	Diesel UST. As of March 2001, the ADEC site file is still active.

Site Name/Address	Site Type	Distance from Subject Property	Comments/Status
TPA 09d STP Municipal Drum Staging 100 feet west of Municipal Garage St. Paul, Alaska	Drums	< ¼ mile north	Diesel and kerosene contamination associated with former fueling operations. As of April 2003, the ADEC site file was active.
TPA 09e STP Contaminated Saltwater Wells St. Paul, Alaska	Saltwater wells	< ¼ mile north	Saltwater wells previously used to wash seal skins were abandoned due to reported diesel contamination from spills at the demolished diesel tank farm.
TPA 10 STP Former Gas Tank Farm Hill on Village East Side St. Paul, Alaska	AST	< ¼ mile north	Contamination associated with four 25,000-gallon ASTs. As of February 2000, the ADEC site file was closed.
TPA 11 STP Demolished Diesel Tank Farm Tract 43 St. Paul St. Paul, Alaska	AST	< ¼ mile north	Diesel fuel tank farm decommissioned in 1988. Six 80,000-gallon ASTs removed; had been associated with large spill in 1968 resulting in fish kill. As of May 2001, the ADEC site file is active and includes groundwater monitoring of the area.
MV All Alaskan St. Paul Island Vessel North Shore St. Paul, Alaska	RCRIS	< ½ mile north	Identification number AKD983075904
St. George Delta Fuel Waterfront Building St. Paul, Alaska	RCRIS	< ½ mile north	Identification number AKR000000885
St. Paul City Port 300 Dock Side Road St. Paul, Alaska	RCRIS	< ½ mile north	Identification number AKR000000489
St. Paul Delta Fuel Company Waterfront Building St. Paul, Alaska	RCRIS	< ½ mile north	Identification number AKR000000893
Unisea Incorporated Northwest Harbor Arm Village Cove St. Paul, Alaska	RCRIS	< ½ mile north	Identification number AK0000244053

SECTION 6
CONCLUSIONS AND RECOMMENDATIONS

The results of this ESA represent a review of current conditions, based on available information and limited observations, as described in previous sections of this report.

In 1910, a signal station was constructed on the property. Since approximately 1912, the subject property has been used for the storage of potable water. No other activities are known to have occurred on the subject property. The property has included several water storage tanks as well as a signal station, tank house, and pumping house. Conduct of lead-based paint and asbestos surveys is outside the scope of a Phase I ESA. However, available records indicate that lead-based paint and asbestos containing building material may have been used on former buildings at the site. No evidence of the presence of these materials was identified during the site reconnaissance.

Tetra Tech performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-00 of Lots 1 and 2, Parcel 6, U.S. Survey No. 4943, Alaska, Tract A, St. Paul Townsite (the property). This assessment has revealed no evidence of recognized environmental conditions in connection with the property.

SECTION 7
LIMITATIONS

This report was compiled based partially on information supplied to Tetra Tech from outside sources and other information in the public domain. The conclusions and recommendations herein are based on the information Tetra Tech obtained in compiling the report. This information is on file at Tetra Tech's office in Mountlake Terrace, Washington. Tetra Tech makes no warranty as to the accuracy of statements made by others, which may be contained in the report, nor are any other warranties or guarantees, expressed or implied, included or intended by the report except that it has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by other professional consultants or firms performing the same or similar services.

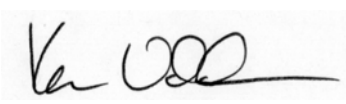
Because the facts forming the basis for the report are subject to professional interpretation, differing conclusions could be reached. Tetra Tech does not assume responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with submitted recommendations or suggestions does not assure elimination of hazards or the fulfillment of client's obligations under Federal, State, or local laws or any modifications or changes to such laws. None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature but shall be a representation of findings of fact from records examined.

The depth of this investigation is confined to the above-listed scope of work. Hazardous materials or coatings may be masked by building materials, buried beneath the ground surface, or concealed in an otherwise undetectable manner. Tetra Tech has exercised due diligence in the conduct of this Phase I ESA but makes no warranty regarding the presence or absence of concealed features that could not be documented at the time the Phase I ESA was conducted.

Prepared by:

Brian Croft
Environmental Scientist
Tetra Tech EM Inc.

Reviewed by:



Ken Valder
Project Manager
Tetra Tech EM Inc.

SECTION 8
REFERENCES

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U.S. EPA. 2003. CERCLIS-No Further Remedial Action Planned (CERCLIS-NFRAP) Database.

U.S. EPA. 2003. Emergency Response Notification System Database.

U.S. EPA. 2003. National Priorities List Database.

U.S. EPA. 2003. Resource Conservation and Recovery Information System Database.

APPENDIX A

SITE PHOTOGRAPHS

City of St. Paul
St. Paul Island, Alaska

Photograph 1

View of water tank property looking from City Hall to the northwest.

Photograph 2

View to the north from water tank property; the top of the two large harbor fuel tanks are visible at end of the road.

Photograph 3

View to the east from water tank property.

Water Tank Property
City of St. Paul, St. Paul Island, Alaska
Tetra Tech EM Inc.
Project G1063.0066.03
Photo Date: June 17, 2003

Photograph 4

View to the south from water tank property; City Hall and satellite dish locations are visible.

Photograph 5

View to the west from water tank property; Bering Sea visible.

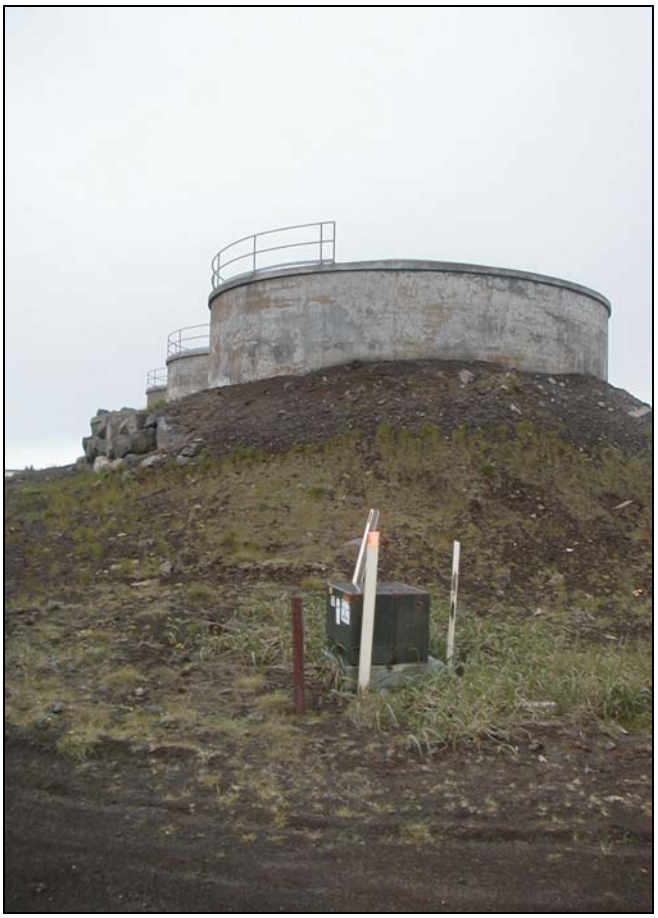
Photograph 6

View of pumping house on east side of water storage tanks.

Water Tank Property
City of St. Paul, St. Paul Island, Alaska
Tetra Tech EM Inc.
Project G1063.0066.03
Photo Date: June 17, 2003

Photograph 7

View of the interior of the pumping house.



Photograph 8

View of the electrical transformer at north end of water tank property.

Water Tank Property
City of St. Paul, St. Paul Island, Alaska
Tetra Tech EM Inc.
Project G1063.0066.03
Photo Date: June 17, 2003

APPENDIX B

HISTORICAL PHOTOGRAPHS

City of St. Paul
St. Paul Island, Alaska

1975 Aerial Photograph – City of St. Paul

1966 Historical Photograph – Construction of third concrete water storage tank

1966 Historical Photograph – City of St. Paul with three concrete storage tanks in place and former tank house removed at top of hill.

Between 1956 and 1966 Historical Photograph – Two concrete water storage tanks along with tank house containing four wooden storage tanks.

1948 Aerial Photograph – City of St. Paul with tank house on right side of photograph.

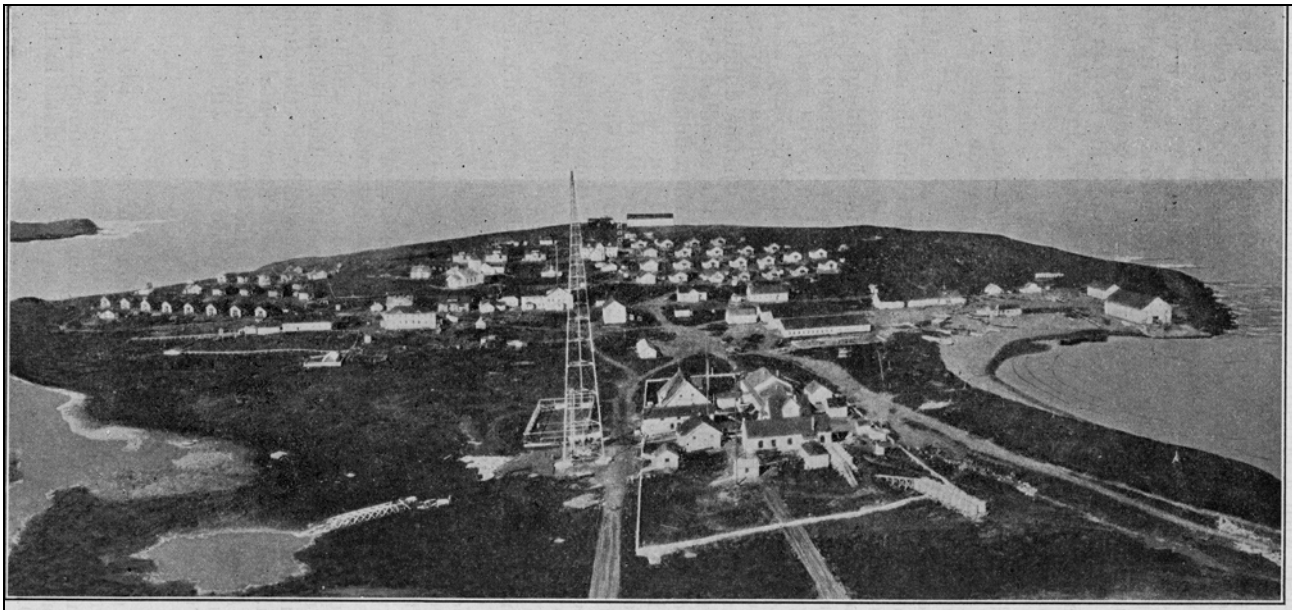


FIGURE 6.—Village on St. Paul Island, Alaska

1930 Aerial Photograph – City of St. Paul with tank house at top of hill (center of picture).

1912 Historical Photograph – View of tank house construction for two original redwood tanks.